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THE JOURNAL
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OKLAHOMA STATE MEDICAL ASSOCIATION

EDITORIALS

THESE DOCTORS RUN A LIBRARY

In *Medical Economics*, February, 1953, Jack Spears, Executive Secretary of the Tulsa County Medical Society, tells how it is done.

This is neither a fairy nor a fabulous story, yet it is a story well worth telling and one that should make the members of all county medical societies sit up and take notice.

The Tulsa County Society is to be commended for this forthright demonstration of what can be accomplished with an ambitious, wide awake, progressive membership.

The well written definitive story is recommended to the officers and governing bodies of all county societies. It will be readily available in the widely distributed Journal of *Medical Economics*.

There has never been a time when physicians were so in need of wide reading. They must never fail to hold a high place in the field of general knowledge as well as in the science of medicine. This is impossible without books and current periodicals.

THE ANNUAL MEETING

The New Year's resolutions should have contained a determination to attend the Tulsa Meeting of the State Medical Association April 13-14-15, 1953. It is not too late to make the Annual Meeting one of your 1953 obligations. The scientific work committee promises a good program. Public relations and political problems continue to command time and attention. This should be a significant season for organized medicine. The members of the State Association cannot afford to miss this meeting. Please circle the date, make hotel reservations and find time for this important event.

THE INCUBUS OF STATE MEDICINE

If we do not curb our cowardice and preserve the rightful privileges of patient and physician, some sad day we will stand face to face with the accusing ghost of our great profession and hang our heads in shame.

WHAT OF THE PHYSICIAN'S FEE

In this materialistic age where realism defies idealism, it may be well for physicians to give serious consideration to these questions.

What physician can fix a standard professional fee. It is an impossibility. Professions are for service, not for profit. Often the physician's fee is in his head, sometimes it is in his heart, occasionally it is in his hand. Every physician should weigh these three possibilities in his conscience before presenting his bill. They should be weighed and processed to meet the individual patient's psycho-socio-economic needs. Regardless of material ends, the prized patient-physician relationship should be preserved. In the final analysis, this is the only way to make the practice of medicine truly profitable.

For the genuine disciple of the Father of Medicine, fate often fixes the charge and sometimes an unseen providence takes care of the fee. In some cases payment is prompt and adequate, in some it may be full measure running over, in others the only compensation may be an expression of obvious gratitude, a "God bless you" or "I never forget to remember you in my prayers." The physician who spurns such expressions of faith and good will is short sighted, undeserving of reward. The possibility of long range returns, though not anticipated, should be kept in mind. They may be surprising, not inconsequential. Recently a surgeon over a period of years estimated referred work from a patient who was unable to pay for her own operation as amounting to approximately $30,000. Though the poor are always with us, so are their relatives and friends, many of whom are able to pay. The washer-woman across the track with the rich folks' washing on her back may be able to deliver the services of her physician with the clothes. Faith, hope and charity are always worth the money, and because of hidden values, the greatest of these is charity.

MEDICINE FOR THE PEOPLE, NOT BY THE PEOPLE

From the days of Hippocrates, medicine has pursued its evolutionary course. It has consecutively found its way through the rise and fall of nations and governments. In its course, it has unraveled the secrets of nature and gradually revealed the cause and cure of disease. The accumulation of knowledge in the care of the sick and the resulting sense of humanism led to comprehensive preventive measures including sanitary engineering and the development of public health.

All this has come through the progress of medical science. The meticulous devotion of the medical profession to its own special field of endeavor in the U. S. has fostered health and happiness, doubled longevity and freed the people to follow their varied pursuits in confidence. In the last analysis it may be said that these results have been achieved in behalf of the people.

Rudely disregarding medicine's overall contributions to the nation's welfare the presumptious New Deal assumes control, disturbing our trust in established principles discrediting our competency, questioning our integrity, overriding the Bill of Rights and cracking the Constitution. The crafty bureaucrats on the road to Stateism quickly fell upon medicine and because of its sympathetic appeal they made it their leading slogan. They argued that medicine must be taken away from a decadent profession and given to the people.

While the medical profession in this age of phenomenal scientific progress continued to move toward greater human weal, the Federal Security Agent and the omnipotent President of the United States took a quick look, made inaccurate statistical surveys under false claims ignoring medical knowledge and historical facts, went to the people with the problem of medical care. Of course, many of the people driven by the problems of existence under an exacting bureaucracy were glad of an easy way. They did not know, neither did the bureaucrats know, that Sophocles more than two thousand years ago because of death and destruction declared that ". . . of all the curses which cleave to man, ill council is the sovereign curse." Under a new administration it may yet be possible to spare the people and leave the penalties to the guilty councilor.

But it must not be forgotten that hanging over the people, the new administration and the medical profession, is the report of the Truman Commission. After making all reasonable allowances, it is difficult to understand how the spokesman for the Commission could say, "we feel that our function . . . is to do everything in our power to bring the basic information contained in our studies to the attention of the American people. Then it is up to them to act upon that information."

Generosity prompts the thought that perhaps the physicians on the Commission had never had an opportunity to learn the needs of the people through house to house calls, but it does not explain why this spokesman refers the problems of medical care to the people instead of the physicians who for the benefit of the people have brought it to its present high point of efficiency. Certainly the people have a vital interest in medical care but they do not know what it should consist of or how it should be administered. May the shades of Sophocles and all the past medical benefactors shadow the issue and save the people and the profession from this unfortunate and no doubt unintentional bit of ill council.

"I DON'T WANT TO GO HOME IN THE DARK"

Often I have said if you will find a good old fashioned family I will endeavor to produce the lamented good old fashioned family doctor.

Though people have strayed from the family circle and deserted the meeting house for the sins of the cinema, they still cling to one old fashioned habit—the habit of dying. In this day of modern medicine, nurses play an important part in the last act and patients are taught not to look for the light of the doctor's presence as the end approaches. In all probability he will get the news over the telephone. Fortunately, most people are as unaware of death as they were of the birth that gave them the privilege of life.

But there was a time when dying people in their lucid moments looked for the doctor and were conscious of his presence, often reached for his hand with a strange light in their eyes. In those days medicine meant friendship, sympathy, and "a help in the time of need."

Dying at dawn, O. Henry said to his doctor, "Turn up the lights, I don't want to go

home in the dark." It must have meant much to this lonely teller of stories about common people to have his doctor light him home. While we are trying to find our own way over strange new roads, would it not be wise to restore this bedside service. People still measure interest by deeds.

TUBERCULOSIS AND THE GENERAL PRACTITIONER

What could be more important in the life of the ambitious, conscientious, general practitioner than a thorough knowledge of tuberculosis? Though it gradually gravitates to a lower position of mortality rating in statistical columns, it still stands as one of most important of all diseases demanding the attention of the General Practitioner? How about combining an interesting and profitable postgraduate course and a pleasant vacation at Saranac Lake in the beautiful Adirondacks. This symposium on tuberculosis for the general practitioner is sponsored by the Saranac Lake Medical Society and the Adirondack Counties Chapter of the New York State Academy of General Practice. The dates are July 13-17.

YOU'RE IN THE ARMY NOW

In World War I it didn't matter about your know how. One of the most skillful surgeons I ever knew marched back and forth in the mud on guard duty in France. During the whole time he never experienced a flash of a scalpel over a scrubbed abdomen. Instead, from exposure he developed a bronchiectasis to dog his lengthening years.

Though our men in Korea have the best army medical care in history, there are echoes of misplaced skills in the service. It is said that the boy who grew up with mules and requests an assignment to the stables is likely to wind up caring for canaries and white mice. A sergeant[1] giving advice to a young recruit said, "Keep your mouth shut and your bowels open, and don't never volunteer for nothing."

1. Keyes, Francis Parkinson. Steamboat Gothic. Julian Messner, Inc., New York. 1952.

A SHORT CUT TO PUBLIC RELATIONS

The shortest road to public relations runs straight through personal relations. Personal relations, good or bad, are dependent upon personality. Personality is a combination of innate psychological traits and individual biological endowments. Through environment and discipline, personality is capable of growth and development. Goethe considered it the "greatest fortune of mortal man." When properly employed, it is the physician's greatest asset.

Unfortunately, the phenomenal progress in medical science tends to push personality out of the picture. The exacting demands of medical education and the exigencies of practice, including the necessity of keeping up with medical progress, leave little time for humanistic pursuits and the deliberate unfolding of personality. Haste limits the time devoted to the patient-physician relationship and whether obvious to the patient or not, diminishes the scope and power of personality and often leaves the patient in a state of uncertainty and frustration.

Physicians should never forget that through the simple art of human kindness and personal effort, they can establish a relationship that engenders interest, good will, esteem, and often genuine affection. Such a relationship between the patient and the physician is well worth striving for and one that brooks no interference. Once this becomes the physician's goal, committees on public relations will go out of business.

A MEMORABLE CAREER

In this issue of the *Journal* our readers will find the obituary of David Wilson Griffin, M.D., and a resolution by the faculty of the University of Oklahoma School of Medicine concerning his services to humanity through many intellectual and professional channels.

Through exceptional courage, foresight, industry, professional attainments and executive ability controlled by a fine sense of integrity and humility he made a contribution to medical progress in Oklahoma.

With these tributes to a great man whose influence carries on, we go to press with bowed heads.

PLAN TO ATTEND
THE O.S.M.A.
60TH ANNUAL MEETING
TULSA, OKLAHOMA
APRIL 13-14-15
House of Delegates April 12

Scientific Articles

EMPHYSEMA

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OKLAHOMA CITY, OKLAHOMA

There are various types of emphysema and different classifications, but the one considered in this paper will be the chronic emphysema which is seen usually in the older patient, mostly males. It is a condition which has been recognized for years, and possibly first described in 1698 by Floyer of Litchfield, who spoke of the disease as flatulent asthma, meaning a condition in which the lungs were blown up by air. The pathogenesis of emphysema is still a matter of speculation. In former years many papers have been written by eminent physicians dealing with various theories as to its origin.

Jenner wrote a paper mentioning increased pressure during expiration as a causative factor. Heightened pressure during inspiration was advanced by Laennec. Some 50 years ago Freund advanced the theory, according to Osler, that it was primarily a disease of the costal cartilages; a chronic hyperplasia with premature ossification was believed to bring about gradually a state of rigid dilatation of the chest to which the emphysema was secondary. Such changes are occasionally seen occurring in young persons, particularly the contraction of the first three ribs; later would come the changes in the spine and shape of the thoracic cage. As a correction for the early rib changes, an operation known as Freund's resection was attempted at that time.

Osler mentions occupations as a cause, stating that the condition was more common in players of wind instruments, in glass blowers, and in occupations necessitating heavy lifting or straining. He also thought that whooping-cough, bronchitis and asthma were important causes.

In "Diseases of the Chest" February 1952, Mayer and Rappaport[1] advance what they consider is a new concept in the medical history of cystic lungs, bronchiectasis and emphysema. The origin of these conditions is traced to postnatal developmental defects. It is their opinion that developmental defects come from defective opening of the lung buds at birth and shortly thereafter. This might be caused by changes in the metabolic process and babyhood diseases, such as whooping-cough, asthma, or other allergic conditions.

It seems likely that all of these theories have a bearing on emphysema as seen in the older patient. The increased expiratory pressure caused by a chronic cough from whatever cause, accompanied by secretion obstructing the bronchioles, could lead to overdistention of the air sacs, lobules and smaller bronchioles. Overdistention of individual sacs means enlargement of the lung with a thinning of the alveolar wall. Coughing with an obstructed bronchiole would increase the pressure causing further distention, which could lead to a rupture of the lobule and a loss of lung elasticity. With the loss of elasticity and a thinning of the lobule wall there would be a diminished elastic recoil and an overdistention of the lung with an increase

in all diameters of the chest. This causes a disturbance in the physiology of respiration. There is a diminished vital capacity. The residual air is increased with the expiratory lung volume being increased. This means a poorer emptying out of the carbon dioxide in expiration leading to a higher alveolar CO_2 tension and a lower alveolar oxygen, which results in poor oxygen absorption by the blood and an increase in plasma carbon dioxide and diminished oxygen saturation. The increased CO_2 further increases the plasma sodium bicarbonate and diminishes plasma chloride, causing a change in body physiology to maintain the proper Ph concentration. The poor oxygen saturation causes increased cardiac output, throwing a burden on the heart, and can later lead to decompensation and also an increase in the red cells, leading to or toward polycythema, and in an advanced degree to a cyanotic coloring of the skin and clubbing of fingers and toes[2].

The symptoms of emphysema usually begin with shortness of breath on exertion. This can continue for months until an acute respiratory infection causes further obstruction of the bronchioles leading to an attack characterized by extreme shortness of breath, cough, weakness, anorexia and debility. As the condition progresses the patient becomes incapacitated as far as work is concerned, so that in extreme cases even slight exertion is an effort.

The physical signs are well known. Inspection shows the diameters of the chest to be increased with the characteristic barrel shape. The dorsal area of the spine shows forward bowing, the ribs are turned upward and outward, with the thoracic cage more or less rigid; the subcostal angle is markedly widened. The X-ray picture as a general thing shows a small heart hanging in the midline, and the domes of the diaphragm to be almost flat; areation of the lung fields is increased and bronchial markings are more prominent. The lateral view shows an increase in the AP diameter associated with an increased retro sternal space and a prominent sternal angle. On respiration the lung fields do not light up in their usual fashion.

The percussion note is hyperresonant and this hyperresonance extends very low at the base of the lung, with little change between inspiration and expiration. On deep inspiration the subcostal border moves inward instead of outward and the thoracic cage is lifted up as a whole rather than being enlarged by the external rotation of the ribs. The breath sounds are altered, usually with expiration being prolonged and wheezing. The heart sounds are frequently distant, and in extreme cases the border of the heart cannot be percussed. As mentioned before, the nails may show cyanosis and clubbing of the finger may be present.

In the differential diagnosis one must determine whether this condition is emphysema, asthma, silicosis, or a form of heart failure. A careful history of slowly progressing shortness of breath on exertion over a period of weeks or months indicates emphysema. The careful history will rule out asthma with its acute attacks of cough and wheezing. Also very frequently the family history of asthma or hay fever is helpful. Anthracosis or silicosis is found nearly always in miners, but this is now rare, due to the dust prevention in mines. In the older patient cardiac decompensation versus emphysema may worry the physician, especially since both can be present. The patient with emphysema can develop a cor pulmone and suffer from heart failure from either the right or left side of the heart. With the failing heart there should be evidence of congestive failure with a swollen liver and edema of the feet. Emphysema will cause some swelling of the neck veins. The physician must determine whether the liver is enlarged and swollen or pushed downward by the flattened diaphragm. The careful history and a good physical examination should help clear up the dilemma.

The early treatment of emphysema consists of the use of broncho-dilator aerosols and preparations such as aminophyllin and ephedrine. A good expectorant cough preparation, especially one containing potassium iodide to keep bronchial secretion loose, is indicated. If the patient has an allergic asthma this should be treated by a competent allergist. With these drugs there is the possibility of a refractory state developing. If such happens, and it often does, especially with an acute cold, then the patient is in serious condition. Bed rest with the proper antibiotic to overcome the infection is urgently needed. Demerol 50 mgs. can be given by mouth or hypo three or four times daily for a period of three or four days. Oxygen by nasal catheter may be necessary for the first few days. Pneumoperitonium may be helpful. This helps to raise the diaphragm

which in turn will aid in the exchange of air in the lungs. This measure also is advocated when the emphysematous patient has to undergo surgery and evidence of cyanosis developes.

After the acute emergency is over and the patient becomes ambulatory, the following measures are indicated.

1. On arising in the morning the use of a nebulizer inhalant of Vaponephrin or Isuprel for three or four deep inspirations.

2. Manually elevating the diaphragm with the palms of the hands underneath the ribs pushing upward and inward during the last half of expiration. This is to be done 10 or 12 times leisurely, either lying in bed or sitting up.

3. After the use of the vaporizer the patient should deliberately try to cough to raise any mucous present.

4. Aminophyllin three to five grains, or Glucophyllin should be taken with a half glass of water before breakfast and in the afternoon.

5. The patient s h o u l d practice diaphragmatic breathing.[3] He can do this at first by lying down with one hand on the abdomen and one on his chest, and he should attempt to see that the abdomen protrudes forward during inspiration with little or no chest movement. After he becomes accustomed to this, the same exercise should be undertaken sitting up and later walking.

6. A two-band belt to support the lower abdomen and elevate the diaphragm can be tried.

7. In the mid-afternoon and before the patient retires a nebulizer should be used to dilate the bronchi, followed by coughing to clear the bronchial tree.

8. Potassium Iodide should be taken three times daily before meals if necessary to loosen bronchial secretion.

9. Intermittent inhalation of oxygen by some method for 20 to 30 minutes two or three times daily may help in overcoming the patient's weakness and improve his exercise tolerance.

Other suggestive measures are intermittent and positive pressure breathing with the Drinker type of respirator or other instrument using oxygen. Ceepryn, a wetting agent can be added to the broncho dilator drugs to liquify and increase the bronchial secretion. Following its use if the patient is not too dyspneac, postural drainage can be attempted. Having the patient give a forced cough about the end of expiration may help lessen the carbon dioxide remaining in alveoli and also to free the bronchial tree of secretion.

Any acute respiratory infection needs adequate treatment with antibiotics. The above therapeutic methods should decrease the patient's dyspnea and weakness and make life much more tolerant, and even permit him to return to light work. One should call attention to the danger of giving excessive concentration amounts of oxygen to the patient suffering from emphysema with marked cyanosis. Giving 100 per cent oxygen may cause a rapid change in Ph and can lead to unconsciousness.

As in every chronic condition, prevention is more important than trying to cure after the condition occurs. The prevention of spinal curvature by proper posture in the older person, and exercise might help—provided we see the patient in time. The prevention of whooping-cough and chronic bronchitis in childhood by the recognized means may prevent bronchiectasis in later life. Also effective treatment of asthma, bronchitis and bronchiectasis may stop the development of emphysema, since once the condition is established, even with the best known present treatment, emphysema tends to be progressive to limit the patient's activities and to ultimately incapacitate him.

SUMMARY

1. A few new suggestions have been added in the treatment of the emphysematous patient.

2. The use of the proper antibiotic in acute respiratory infections may help to prevent aggravation of emphysema.

3. The use of aerosols in the treatment of infections and also to loosen bronchial secretion is helpful.

4. Pneumoperitoneum may help the advanced emphysematous patient in an emergency such as a prostatectomy, or other conditions not involving an abdominal incision.

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SURGICAL LESIONS OF THE CHEST IN CHILDREN

MARTIN LEIBOVITZ, M.D., F.A.C.S.
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Thoracic surgery has come into its own in the past 15 years. Rapid advances in the fields of anesthesiology, bacteriology, antibiotic therapy, and the more accurate knowledge of the physiology of respiration have given great impetus to the surgical approach to numerous chest wall and intrathoracic lesions. The surgical lesions of the chest in children differ somewhat from those in the adult, in that they are frequently on a congenital or developmental basis which require early or immediate corrective measures to either save the patient's life or to create a situation compatable with life. Thoracic surgeons have learned that newborns tolerate early corrective procedures remarkably well when given good supportive therapy, and therefore procedures of rather great magnitude can be undertaken in the first few days of life with good results. I shall not consider those cardiovascular defects for which corrective measures have become standardized, in this paper.

Lesions of the Thoracic Cage

Severe infections of the chest wall are not common lesions in children. These were much more common before the advent of the sulfa drugs and antibiotics. Empyema necessitatis or spontaneous tuberculous fistulae are fortunately things of the past. One still occasionally encounters mycotic infections of the rib cage which have their primary seat in the underlying lung parenchyma and which invade the Thoracic wall. In these instances it is sometimes necessary to make the diagnosis by biopsy. The response of these infections to medical therapy is frequently most gratifying.

It is well known that the thoracic cage in children is quite pliable. For this reason compression of the chest wall may produce extensive intrathoracic trauma without producing associated rib fractures. Severe compression injuries such as those produced by concussion or by the wheel of a car, may produce nothing more than traumatic asphyxia without any other associated injuries. On occasion one may encounter rupture of one of the main bronchi following trauma of this sort. With healing, stenosis of the bronchus and atelectasis of the respective lung or lobe of lung may ensue. This condition may not be recognized until long after the original injury has taken place.

Pectus excavatum or funnel chest is one of the more common deformities of the chest. In this condition the sternum is depressed and the cartilages adjoining the sternum are deformed and a large, hollow groove-like deformity of the chest results. The etiology of this defect is not entirely understood, but it is believed to be the result of abnormal ligamentous attachments between the midportion of the diaphragm and the lower end of the sternum. During the respiratory motion of the diaphragm there is continuous tugging on the rather mobile lower portion of the sternum causing retraction. The importance of surgical treatment for it has not been recognized and instituted until recently. If this condition is permitted to progress, extreme chest deformity may result with marked displacement of the heart and mediastinal structures or compression of those structures. Cardiac failure may result from this. It is therefore being advocated at the present time to correct this deformity at an early age. In the very young, nothing more than freeing the sternum from the diaphragm may be necessary. In the more advanced ages when the deformity has become fixed much more extensive surgery with the freeing of the entire sternum and fixing it in normal position is the procedure to be carried out.

Tumors of the ribs are among the more common lesions of the chest wall in children. Both benign and malignant tumors can occur. Cartilagenous tumors of the bony chest wall are the most common type of primary tumor in this region. Any tumor that occurs in bone may also arise in the ribs and in the sternum. The more common rib tu-

mors are designated as chondroma, chondrosarcoma, osteochondroma and osteochondrosarcoma. Other tumors are giant cell tumors, Ewing's sarcoma, osteoma, fibrosarcoma and hemangioma.. Primary malignant tumors of rib and sternum comprise about 10 per cent of all primary malignant bone tumors. About 80 per cent of all the tumors of the bony thorax arose in ribs and 20 per cent in the sternum.

The most common symptom is the appearance of a tumor mass. Pain, if present, is usually one of three types: (1) local pain, dull and aching, (2) Pleuritic pain which may occur in cases where the bulk of the tumor is intrathoracic, and (3) neuritic pain referred along the the distribution of an intercostal nerve. The diagnosis is usually made by x-ray confirmation of a palpable mass.

I feel that radical surgical extirpation of the tumor is the accepted therapy of choice in most cases. It is important to remove long segments of the involved ribs. The intercostal muscles above and below the tumor should be removed. Even benign tumors have a tendency to recur, therefore adequate excision is mandatory.

Pleural Space

The most common condition encountered affecting the pleural space alone is empyema. The frequency with which this condition is being seen has been remarkably reduced in the past few years. Ten years ago winter would see hospital wards filled with cases of pneumonia and its frequent complication —empyema. With the advent of the sulfa drugs and antibiotics pneumonia has been well controlled. Since most empyema of childhood is postpneumonic in origin it is now being seen less frequently. Occasionally postpneumonic empyemas in patients who have not been treated with antibiotics are still seen. Occasional cases are encountered where the empyema and the antecedent pneumonia has been treated by antibiotic therapy but the infection has been refractory. In such instances there is a definite change in the characteristics of the empyema fluid. It is not purulent but serous in nature. On culture it may be sterile and the empyema wall is less thick due to a lesser degree of deposition of fibrin over the pleural surfaces.

With the advent of antibiotics the treatment of empyema has changed. Formerly it was necessary to institute open drainage on all cases. In acute empyemas today, repeated aspirations with instillation of antibiotics may produce complete obliteration of the empyema space and thus lead to a cure. At times the empyema may become loculated and adequate aspiration is not possible. Rib resection for drainage of an empyema cavity often was fraught with an undesirable sequence of events. Re-expansion of the underlying lung following rib resection often took many weeks or months. In growing children it not infrequently resulted in chronic chest deformities, due to the scarring of the parietal pleura. Occasionally it resulted in permanent scoliosis.

Since World War II, pulmonary decortication has become the procedure of choice. The principle of pulmonary decortication that was first used in the treatment of hemothorax of traumatic origin is now being used routinely in the treatment of such chronic empyema. By removing the fibrous peel of infected granulation tissue from the surface of the lung, diaphragm and chest wall, the normal functions of these structures are restored. The lung fully expands and there is no resultant deformity of the chest cage or spine.

LUNGS

Cystic Disease of the Lung

Somewhat longer than a decade ago, congenital cystic disease of the lung had a formidable prognosis. In a review up to 1935, Schenck and Stein stated that although adults might live for many years with pulmonary cysts, the condition in children and infants carried the gravest outlook and early death was frequent. They also concluded that, "No specific treatment can be offered. Many cases present a surgical problem and future thoracic surgery in infants and children must meet the challenge." In 1943, seven years later, Fischer and associates reported a successful lobectomy for congenital cystic disease of the lung in a four week old infant. Since that time this feat has been repeated innumerable times and even in much younger infants.

The symptomatology of a given cyst depends on the original anatomical status together with post natal changes affected by respiratory action and infection. A small cyst may give no signs or symptoms and occasionally larger cysts may persist into adult life before their presence is suspected. The symptoms may be caused by severe compression of normal tissue by a large cyst. It may become manifest by infection of the

cyst or may cause symptoms by rupture of the cyst causing a tension pneumothorax. It is not infrequently the cause for respiratory difficulty in the newborn.

Congenital cysts are less common than acquired cysts which appear as a consequence of inflammatory reactions. Congenital pulmonary cysts may be single or multiple, localized or scattered; they may or may not communicate with a bronchus and may contain fluid, gas, or both.

Various forms of surgical therapy have been applied. Enucleation of the cyst or the removal of pulmonary tissue is by far the treatment of choice. Segmental resection, lobectomy, or even total pneumonectomy may be necessary. This is the most rapid method of restoring normal respiratory physiology. Other less desirable methods of treatment are, passage of a needle through the chest wall into the cyst cavity, permitting withdrawal of entrapped air. This is only a temporizing measure and does not cure the condition. A catheter may be passed through a trocher and introduced into the cyst for more prolonged aspiration. Marsupialization of the cyst onto the chest wall with destruction of its membrane by curettage, cauterization, or packing is another less desirable method.

Bronchiectasis

Bronchiectasis is primarily a disease of youth and early adult life and it is a disease which if not treated in proper time will often prove fatal. People who develop severe bronchiectasis in childhood rarely live beyond the age of 35.

Bronchiectasis is a common disease which has been overlooked, wrongly diagnosed and poorly treated by a majority of medical men for many years. Too often children with typical pictures of bronchiectasis have been diagnosed as chronic bronchitis or their parents have been told that the child's cough was habitual and that he or she would eventually outgrow it.

Three factors are usually present in the development of bronchiectasis. Obstruction of a segment or segments of the tracheobronchial tree, atelectasis of the surrounding lung parenchyma, and infection distal to the site of obstruction. With the non-aeration of the alveoli there is a dilation of the bronchi. If re-aeration does not occur, infection of the bronchial wall results, with destruction of the cartilages, muscles and other supporting tissue. As fibrosis occurs, the bronchi are still more susceptible to the pressure change within the chest and the dilation becomes more severe.

Cough is the most common symptom of bronchiectasis. In all cases except so-called dry bronchiectasis the cough is associated with the production of non purulent sputum. It must be remembered that almost all children up to the age of seven, and even many adults, will swallow their sputum. The sputum in many cases has an offensive odor. Bronchiectasis is probably the most common cause of hemoptysis in adults. Wheezing is another fairly common symptom, especially in children. Dyspnea is seen in far advanced cases or associated with complications.

Any patient with a history of cough, particularly on arising and upon retiring, associated with a pea soup sputum, with or without clubbing of the fingers, is entitled to, and should have bronchograms to rule out bronchiectasis. The diagnosis cannot be definitely made on plain chest x-ray films. However, the diagnosis can be made definitely only by instilling iodized oil into all of the branches of the tracheo-bronchial tree.

The treatment of bronchiectasis is that of prevention and once developed is one of extirpation. Obviously the use of immunization against whooping cough should be routine. All infants and children with any of the acute exanthematous diseases are potential candidates for bronchiectasis. Clearing up of allergies to eliminate asthma may prevent some cases from developing bronchiectasis.

After bronchiectasis becomes irreversible there is no hope for a cure except by surgery. Until the development of a one stage lobectomy by Brunn in 1929, treatment was largely palliative. With the recent advances in thoracic surgery the operative procedure can be carried out with a very low mortality rate. The amount of pulmonary tissue removed depends on the amount of tissue involved in the process. Resections may involve segments of lobes, lobes or an entire lung. Obviously enough functioning pulmonary tissue must be present to allow normal activity before resection is considered. The risk of resection is slight compared to the risk of the patient keeping his diseased lung tissue.

Lung Abscess

Most lung abscesses in children are nearly always due to aspiration either of foreign

bodies or of contaminated blood clots secondary to pharyngeal or intra-oral surgical manipulation performed under general anaesthesia. Lung abscesses in children are not as commonly seen as was true a number of years ago. Many more tonsillectomies and other pharyngeal or intra-oral procedures were done at that time and the technic for those procedures was not as well developed. When lung abscesses occur in children intensive antibiotic therapy many times will cause rapid healing of the parenchymal lesions. If the lung abscess becomes chronic and this is generally after a period of about four to six weeks, following recognition of it, either drainage of the lung abscess or resection of the involved pulmonary tissue is certainly the procedure of choice.

Multiple lung abscesses may occur from other foci of infections of the body. These are best handled by treatment with antibiotics. These patients are usually critically ill and surgical intervention is frequently of little avail unless the source of the pyemic abscesses can be controlled.

A localized abscess may rupture into the free pleural space giving an empyema with or without a bronchial communication. These cases are best handled by drainage in the very acute cases or preferably by decortication of the empyema cavity and resection of the involved pulmonary tissue.

Mediastinum

The most common mediastinal tumors in children are the lymphomas. Hodgkin's disease and lymphomas with mediastinal lymph node involvement are seen more frequently than benign mediastinal tumors but the diagnosis of lymphomas can usually be made in children by means other than thorocotomy and exploration. Benign tumors of the mediastinum are uncommon, and nearly all of those tumors which occur in adults may occur in children. Such lesions are demoid tumors of the anterior mediastinum, bronchogenic cysts, neurogenic tumors of the posterior nerve chain and many others. The technic of their removal depends on their location. Mediastinal tumors may present symptoms by exerting pressure on structures, such as pressure on the trachea, esophagus, large vessels or heart, or they may present symptoms by causing a shift in location of structures and altering the normal respiratory and circulatory physiology of the chest. These tumors are best removed at an early age.

Diaphragm

The development of the diaphragm and the descent of the stomach, as well as the formation of the pleural and peritoneal cavities, makes the diaphragm susceptible to weak areas through which hernias may occur. They may be present at time of birth or they may develop later in life.

The complex separation of the celomic cavity into pleural, pericardial and peritoneal cavities begins in the 2.1 m.m. embryo. It is completed in the 20 m.m. embryo. If a hernia of a portion of the gut occurs before this division is completed, the loops of the bowel will not be covered by serous membrane. The hernia would not be a true one. If the hernia occurs after the serous cavities are formed but before the muscular elements of the diaphragm have completely fused, the bowel would be covered by serous membrane. It would then be a true hernia. The communication between the pleural and peritoneal cavities closes in the third month of intrauterine life. Muscle fibers grow in between the pleural and peritoneal cavities and form the diaphragm.

The congenital defects of the diaphragm encountered are usually of two types. The first is an eventration of the diaphragm. These patients have atrophy of one leaf of the diaphragm with complete absence of diaphragmatic musculature with the presence of the pleural and peritoneal layers. In such infants or children, one hemithorax, usually the left is filled with abdominal contents. Occasionally, only minimal symptoms may be present, but more often such children will develop respiratory difficulties and obstructive gastrointestinal symptoms. Repair is usually attempted by trying either to plicate the extremely thinned out diaphragm, or actually to reconstruct the diaphragm by using fascia or muscle flaps.

The second diaphragmatic defect encountered in infants is the hernia of Bochdalek, which is due to improper muscularization of the posterior portion of the diaphragm. This area of the diaphragm will be covered by a pleuro-peritoneal layer. Herniation of intra-abdominal organs may occur. At times infants and occasionally newborns, represent acute surgical emergencies. They show marked respiratory impairment, cyanosis and obstruction of the gastrointenstinal tract at the esophageal-gastric junction or at the duodenal level. Thoracotomy in such instances is imperative and life saving.

In summarizing the symptoms and signs of congenital diaphragmatic hernia, it should be emphasized that the symptoms are severe. Death is frequently caused by asphyxia or intestinal obstruction. Respiratory, circulatory, gastrointestinal, or a combination of these three main symptom complexes may be present. If there is dyspnea, cyanosis or vomiting during crying or nursing following delivery, immediately consider a congenital diaphragmatic hernia in the differential diagnosis.

Physical signs:

1. Rapid respiration and pulse rate.
2. Heart displaced from the affected side.
3. Tympany or dullness on percussion of affected side.
4. Absent or distant breath sounds on auscultation, also the presence of intestinal gurgles.
4. Scaphoid abdomen as most of the abdominal contents may be in the chest.

The suspicion of the presence of diaphragmatic hernia is the main diagnostic feature. X-ray evidence is of great value. The earlier the repair is performed the better the chance of survival of the infant. Another less common type of hernia is the Foramen of Morgagni or Parasternal hernia. The contents of this hernia are usually colon, omentum or intestines.

Esophageal Lesions

Congenital atresia of the esophagus with or without tracheo-esophageal fistula is not an infrequent occurrence. Since the tracheobronchial tree and esophagus are derived from a common anlage it is not surprising to find many various forms of malformations involving these structures. The esophagus may fail to form its usual tubular structure and be nothing but a cordlike structure. The esophagus may be stenotic or the esophagus may have a blind proximal pouch and a separate distal portion leading to the stomach. The esophagus may have a diaphragm obstructing a normal tubular organ. Communications between the esophagus and the trachea are common in these cases.

The most common type of congenital atresia of the esophagus is one in which there is a proximal pouch only, and where the distal esophagus attaches to the trachea usually in the region of the carina. This type of atresia is the most favorable for surgical treatment. The diagnosis of this type of lesion can be easily made if kept in mind in the child who regurgitates recently swallowed food and in which there is no evidence of gastric secretion in the regurgitated material. The infant usually aspirates ingested food and can become cyanotic and have paroxysms of coughing at each attempt at feeding. One should never use barium to verify the diagnosis roentgenologically in such instances; instead, lipiodol should be used in all circumstances. Passing a catheter through the nose into a blind proximal pouch can usually make the diagnosis along with gas in the gastrointestinal tract.

The first successful operation with reestablishment of continuity of the esophagus was done in 1943 by Dr. Cameron Haight. He used the extrapleural approach on the right side closing the fistula, performing an end-to-end anastomosis between the priximal esophageal pouch and the distal esophagus. This method is preferred by many men. Still others prefer the transpleural route.

Strictures of Esophagus

Accidental swallowing of corrosive liquids is not infrequent in children. The most common offender is still lye. The most common site for stricture is at the lower one-third of the esophagus. On swallowing the lye, the sphincter at the cardia of the stomach goes into spasm and the lye is held in the lower end of the esophagus before passing on through to the stomach; during this period of retention a severe burn occurs. During the process of healing, the esophagus, particularly if it has had early and enthusiastic dilatations, will show severe cicatrix formation up to the point where the child will be unable to swallow soft or even liquid food. For adequate esophageal dilatation a gastrostomy is necessary and a standard procedure is to submit the child to periodic retrograde esophageal dilatation with bougies until a time at which it is felt that no further scarring and stenosis will take place. However, many times, stricture formation will occur many months or even years after the initial injury leading to continued difficulty which cannot be relieved by dilatations. Surgical therapy is now being undertaken in increasing numbers. The method most frequently used is resection of the strictured portion of the esophagus, mobilization of the stomach and re-establishment of the continuity of the gastrointestinal tract by esophagogastrostomy.

THE MANAGEMENT OF URETERAL CALCULI

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A perusal of the literature pertaining to the management of ureteral calculi will compound the confusion and uncertainty felt by urologists. One author will report astounding success by means of operative cystoscopy.[1,2,3,4] Another author will stress the hazards and complications of the same procedures.[5,6,7,8] Much has been written concerning the criteria for management of ureteral calculi[8,9,10,11,12] and certainly a cautious, conservative, middle-of-the-road course is generally advocated. However, little has been published, in recent years, about hospital stay and morbidity—particularly since the advent of the anti-biotics.

This study consists of an analysis of 285 consecutive admissions for ureteral calculi in a 500 bed general hospital over the five year period, 1946-50 inclusive.

FIGURE 1

Admissions	285
Patients	249
Cases treated by Surgery or Operative Cystoscopy	220
Average Age	42.7 years
Males	215 or 76 per cent
Females	70 or 24 per cent
Right Ureter	129 or 48 per cent
Left Ureter	139 or 52 per cent
One Stone	242 or 95.3 per cent
Two Stones	10 or 3.9 per cent
Three Stones	2 or .8 per cent
Total Stones	268
Questionable Cases	31

Position of Stone, Age and Sex

The analysis presented in Figures 1 and 2 are comparable to those presented by Bumpus and Thompson[10], Higgins and Warden[8], McKay, Baird and Lynch[9] and others.

Duration of Hospitalization and Post-operative Stay

McKay, Baird and Lynch[9] have reported a study of average hospital stay based on operative or operative cystoscopy management and the position of the calculus in the ureter. (See Figure 3.) Allen[3] reports the majority of his cases treated by operative cystoscopy, with the Johnson stone basket, were discharged on the fifth post-operative day. Most authors have been very vague about this important feature in patient management.

Figure 4 presents an analysis of the duration of hospitalization. This figure is affected by the fact that several cases had unrelated illness or surgical procedures during the same admission.

Figure 5 and 6 present an analysis of post-operative hospital stay based upon the type of management employed. The figure for catheter manipulation represents that means as the only procedure attempted.

Examination of the above figures reveals that all forms of operative cystoscopy entail approximately an equal length of convalescence. One also notes that operative cystoscopy prior to ureterolithotomy does not lengthen hospital convalescence. The fact that 41 per cent of the cases required three days or less postoperative stay would tend to relegate the treatment of ureteral calculi to the status of a relatively innocuous procedure.

FIGURE 2

Position of Stones

	Number	Percent
Upper Ureter	29	11 per cent
Middle Ureter	26	10 per cent
Lower Ureter	213	79 per cent

FIGURE 3

Analysis of McKay, Baird and Lynch

Location of Stones	Average Hospital Stay, Days
Upper part of ureter (20 Cases)	
Operative	17
Operative Cystoscopy	9
Middle part of ureter (11 Cases)	
Operative	13.5
Operative Cystoscopy	14.5
Lower part of ureter (90 Cases)	
Operative	16
Operative Cystoscopy	7.3

FIGURE 4

Duration of Hospitalization of 285 Cases

Average stay	7 days
51 per cent cases	5 days or less
78 per cent cases	10 days or less
10 per cent cases	14 days or more

FIGURE 5

Post-operative Stay 220 Cases

Average stay	5.8 days
41 per cent cases	3 days or less
72 per cent cases	7 days or less
6 per cent cases	14 days or more

Morbidity

The proper evaluation of any therapeutic procedure must, of necessity, include a consideration of the associated morbidity and mortality. There is a paucity of references to the morbidity associated with ureteral calculi. For this reason the analysis in Figure 7 is particularly interesting. Fever of 99.4° or more was used as the criterion of morbidity for this study. These figures indicate that patients treated by operative cystoscopy have a febrile response in one-fourth or less of the cases, whereas open surgical treatment is complicated by a febrile response in practically all cases. However, there is little difference in the duration of fever when it occurs, regardless of the procedure used.

A comparison of Figures 6 and 7 indicates that operative cystoscopy does not adversely affect either morbidity or post-operative stay when subsequent ureterolithotomy is carried out.

Results and Complications

The calculus was recovered in all cases undergoing ureterolithotomy. This favorable result can be attributed to the general policy of taking pre-operative x-ray films.

The overall percentage of successful operative cystoscopies was generally less than has been reported by others.[1,2,3,4,8] One explanation of this finding may be the author's lack of post-hospitalization follow-up information. Undoubtedly many patients passed their calculi spontaneously after hospital discharge and some credit is undeniably due to the operative cystoscopy. The results of this study are shown in Figure 8.

This series is singularly fortunate in not possessing a single fatality. Only one major complication occurred and that was the perforation of a ureter with a catheter and was followed by prompt ureterolithotomy and drainage. In no case was nephrectomy required as the result of operative cystoscopy. No data is available on the subject of post-operative stricture or ureterectasis secondary to over-dilatation of the ureter.

FIGURE 6

Average Post-operative Stay According to Procedure

Basket	4.2 days
Loop	3.7 days
Catheter	3.8 days
Surgery	12 days
Surgery and Operative Cystoscopy	11 days

FIGURE 7

Morbidity as Determined by Fever of 99.4° or more
100 Cases or 45 per cent of Operated Patients

	Average Duration	Percent
Basket	3 days	25 per cent
Loop	3 days	25 per cent
Catheter	4.4 days	15 per cent
Surgery	3.9 days	100 per cent
Surgery plus Operative Cystoscopy	4.0 days	85 per cent

FIGURE 8

	Cases Attempted	Percent Successful
Basket	79	67 per cent
Loop	20	55 per cent
Catheter	68	42 per cent
Total	194	48 per cent
Upper Ureter	14	0 per cent
Middle Ureter	14	21 per cent

Summary

The hospital records of 285 consecutive admissions for ureteral calculi were analyzed from the following standpoints: Age, sex, side, number of stones, position of stones, duration of hospitalization, post-operative stay, morbidity, complications and results. The study was further sub-divided into an analysis of some of the above factors as related to different types of operative cystoscopy and open surgery.

Conclusions

1. The average duration of hospitalization and post-operative convalescence following operative cystoscopy is relatively brief.
2. There is no significant difference in

the duration of post-operative convalescence between the various forms of operative cystoscopy.

3. The duration of post-operative convalescence in ureterolithotomy is triple that of operative cystoscopy.

4. There is no significant variation in the duration of morbidity, as determined by fever of 99.4°, among the various types of operative cystoscopy and ureterolithotomy.

5. Operative cystoscopy prior to ureterolithotomy does not increase morbidity or prolong convalescence.

6. Operative cystoscopy is a safe procedure in the hands of the average competent urologist.

7. The results of operative cystoscopy, although not spectacular in the hands of the average competent urologist, merit continued judicious application of the procedure.

The author wishes to express his appreciation to Sister Superior M. Agatha and Miss Bernice Torkelson of St. John's Hospital, Tulsa, Oklahoma for their assistance in making this study.

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"TIMING" IN LABOR

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For the want of a better word to describe the importance of a set "time" to act during labor I must require the reader of this article to use his own discretion. "Timing" in labor may be likened to that of a batter at home plate. Split second timing when to hit the ball will determine whether the ball is hit a foul or for a base. The cardinal rules hold today as well as they did years ago. There is a time to give the sedatives and analgesics and certainly a limit to the amount to be given. A time to start the anesthesia, a time for the interference which will less jeopardize the mother and baby, a time for the application of the forceps and a time for the episiotomy which may differ according to the type of episiotomy you perform; earlier for the medial lateral, later for median. It is the opinion of many that prolonged labors and occasional fetal deaths are due to the indiscriminate use of sedatives and analgesics, there are others who believe that it is not the type of analgesic so much as the *time* that they are given. Certainly little or no sedation should be given when we believe labor will ensue within the time the baby could be drugged from its influence. Seldom does the average labor need the amount of anesthetic necessary for a major operation. The average obstetrician has had the experience of applying the forceps too early. Experience teaches him the forceps should be applied if possible at the time of a pain or contraction of the uterus and when the head has rotated as much as possible toward normal position of descent. Between contractions the head may rise until the application may be difficult for a perfect one. Obstetricians also differ on the type of episiotomy to perform. The anatomy of the female pelvis it seems should prefer the midline but many fear the chance of a third degree tear from this type. "Timing" is again important in that the midline should not be done until the head is on the perineum and there is bulging. The medial lateral episiotomy may be done earlier but there still may be a third degree tear unless the head is carefully and slowly delivered. Finally the shortest time possible should be allotted to perform an operation with due respect to efficiency. The less time the mother is under the anesthetic, the quicker the delivery and operation the less the chance for post-operative shock.

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Hechter, Dopkeen and Yudell[1] have found that the use of hyaluronidase has "markedly increased the rates of absorption and administration of hypodermoclysis with no untoward reactions." They also found that extremely small amounts of this enzyme facilitated the absorption of fluids in that greater amounts of fluids were absorbed by the patient in a given period of time and that the localized swelling following hypodermoclysis disappeared more promptly.

Similar results with Alidase were recounted by Schwartzman, Henderson and King.[2] They observed "that absorption of various types of solutions, such as saline, glucose in saline, Hartmann's solution, Ringer's solution, penicillin, streptomycin, Adrenalin, and procaine was facilitated in every case."

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President's Page

If we sincerely wish to improve public relations and to fulfill our obligations to society and to increase our influence and usefulness, we must switch more and more to positive leadership.

Rehabilitation is a case in point.

A wreck, either a car or a person, is proof that an error of some kind has been made, but we must undertake to salvage the handicapped person and restore him to a life of usefulness, regardless of circumstances.

I wonder how many of you know that Oklahoma has a Rehabilitation Center, and of its work in returning severely disabled persons to lives of usefulness. This center is located at Okmulgee, and is operated by Oklahoma A. & M. College. I urge you to see it.

The service of this Center is but one of many services provided by the Oklahoma Rehabilitation Service, a Division of the State Board of Education. This agency during the last biennium handled 10,098 handicapped persons, and returned 2,482 to useful employment.

Yes, it is a tax-supported Department, but in this case the taxpayer MAKES money. The average cost of rehabilitation is $553.43. The average increase in earnings of those rehabilitated was $29.00 per week, which means in a very short time they pay more in taxes than the program costs.

Last year the State expended $241,000 on this program. During that year it is estimated that the 2,482 rehabilitated persons mentioned above paid $374,000 in taxes. There are hundreds of families receiving aid to dependent children, because the head of the family is disabled. It is estimated that the state could save $5,000,000 in three years through their rehabilitation.

When, to this economy measure, you add the humanitarian angle with its heartwarming experience of seeing a man doing useful and dignified work rather than selling pencils, you have a bargain. Only doctors can make it go. Look into it, please.

*Statistics furnished by the Office of Rehabilitation.

Alfred R Snyder

President

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SIXTIETH ANNUAL MEETING TO INCLUDE 43 PAPERS

A wide range of current medical interests is reflected in the titles of 17 papers to be presented at the 60th Annual Meeting of the Oklahoma State Medical Association in Tulsa, April 13-15, 1953, by nine visiting distinguished guest speakers.

Announcing the completion of the scientific program last month, Dr. Berget H. Blockson of Tulsa, Chairman of the Scientific Works Committee, said the program would also contain 26 other papers to be presented by Oklahoma doctors, making a total of 43 scientific lectures during the three-day convention.

Doctor Blocksom said all members of the Oklahoma State Medical Association would receive a printed program by mail early in March. The program will also be printed in the April issue of *The Journal*.

Dr. W. Alton Ochsner, Chairman of the Department of Surgery at Tulane University School of Medicine, New Orleans, Louisiana, will present papers entitled "Surgery of the Heart and Great Vessels" and "Recent Advances in the Treatment of Hypertension."

Dr. Garfield D. Duncan, Professor of Medicine at Jefferson Medical College, Philadelphia, Pennsylvania, will discuss "Practical Aspects in the Management of Diabetes."

Dr. Francis J. Braceland, Psychiatrist-In-Chief at the Institute of Living, Hartford, Connecticut, and also Professor of Psychiatry at Yale University School of Medicine, has selected "Early Detection of the Emotional Disorders of Old Age" and "Middle Life and Mental Disease" as his subjects.

Dr. Wendell G. Scott, Associate Professor of Radiology, Washington University School of Medicine, St. Louis, Missouri, will discuss "Diagnostic Radiologic Techniques" and "Radioactive Iodine 131 in the Treatment of Hyperthyroidism."

Dr. Allan P. Bloxsom, distinguished Houston, Texas, pediatrician, and also Professor of Pediatrics at the University of Texas School of Medicine, will speak on "The Use of a Pan-Transfusion System" and "Resuscitation of the Newborn Infant."

Dr. F. Bayard Carter, Chairman of the Department of Obstetrics & Gynecology, Duke University School of Medicine, Durham, North Carolina, has selected "Obstetric Deaths" and "The Radical Operative Treatment of Squamous Cell Cancer of the Cervix" as his subjects.

Dr. Carl A. Moyer, Professor of Surgery, Washington University School of Medicine, St. Louis, Missouri, will lecture on "Respiratory Failure During Surgery" and "The Treatment of Burns."

Dr. James C. Sargent, Chairman of the Department of Urology, Marquette University Medical School, Milwaukee, Wisconsin, will discuss "Bladder Tumors: Their Diagnosis and Treatment" and Urolithiasis."

Dr. Paul H. Holinger, Associate Professor of Otolaryngology, has chosen "Bronchogenic Carcinoma" and "The Significance of Dysphagia or the Lump in the Throat" for his presentations.

"We are most fortunate to secure such a "Who's Who of Medicine for our visiting distinguished guest speakers," Doctor Blocksom said in his announcement. "We hope every Oklahoma doctor will take the opportunity to hear these outstanding men of American Medicine."

Members of the Oklahoma State Medical Association who will appear on the scientific program are as follows:

Dr. B. C. Chatham, Chickasha; Dr. Frank L. Bradley, Talihina; Doctors Paul C. Benton, Robert M. Shepard, Jr., Dixon N. Burns, William R. Turnbow, Arnold H. Ungerman, Robert A. Hayne, Milford S. Ungerman, Averill Stowell, William M. Benzing, William S. Jacobs, John C. Dague, and F. L. Flack, all of Tulsa; Doctors David C. Ramsey, Henry Laurens, Jr., and Ray U. Northrip, Ada; Doctors Keiffer M. Davis and Camp S. Huntington, Bartlesville; and Doctors Brunel D. Faris, William T. Newsom, Paul M. Obert, Howard B. Shorbe, William L. Waldrop, and John Powers Wolff, all of Oklahoma City.

Two roundtable luncheons will provide an opportunity for convention visitors to question visiting distinguished guest speakers. To be held at The Mayo at 12:15 p.m. on Tuesday and Wednesday, April 14-15, the luncheons will be informally conducted. Doctors Ochsner, Scott, Braceland, and Carter will appear at the Tuesday luncheon; Doctors Moyer, Holinger, Sargent, and Bloxsom on Wednesday.

Three section meetings will be of special interest to both specialists and general practitioners attending the meeting. The Section on Neurology and Psychiatry will meet on Monday afternoon and the Section on Urology on Tuesday afternoon. On Wednesday, April 15, the convention will close with an entire afternoon devoted to various problems of Industrial Medicine.

Medical and surgical motion pictures are to be shown each morning from 9:30 a.m. to 11:30 a.m. at the Cimarron Ballroom, headquarters for the meeting.

Convention visitors will also enjoy the commercial exhibits of fifty-five firms offering products and services of value to the medical profession. All doctors are urged to visit all exhibits.

The Tulsa County Medical Society reports that a heavy advance reservation is being made for the 1953 Annual Meeting and urges all Oklahoma doctors planning to attend to mail in the reservation card contained in this issue of *The Journal* at once. Desirable accommodations in all major hotels were still available at press time.

ORDER TICKETS NOW FOR DINNER-DANCE

Tickets for the President's Annual Dinner Dance, a feature of the 60th Annual Meeting of the Oklahoma State Medical Association in Tulsa, April 13-15, 1953, will go on sale March 1st at the offices of the Tulsa County Medical Society, B-9 Medical Arts Building, Tulsa.

Scheduled for Tuesday evening, April 14, the Dinner Dance will feature Ralph Flanagan and His Orchestra, currently America's Number One Dance Band. The event will be held at 6:00 p.m. in the Crystal Ballroom of The Mayo.

Convention visitors planning to attend may order tickets by mail from the Tulsa County Medical Society offices. The price will be $6.50 per person, including tax. This will entitle the holder to a social hour, steak dinner, the inaugural program, and four hours of dancing to Ralph Flanagan's music. There will be no formal after dinner speech, and the program will feature musical selections and the inauguration of Dr. John E. McDonald of Tulsa as President of the Association.

Checks should be made payable to "Oklahoma State Medical Association." Attendance is limited to 500 persons, the capacity of the ballroom.

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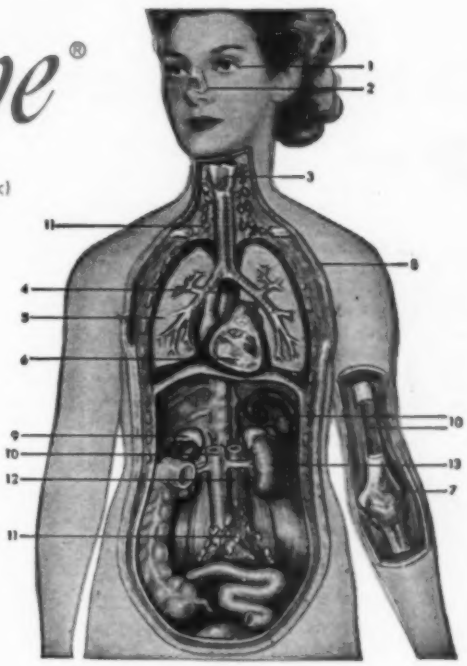

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†Transient beneficial effects.

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CURRENT ACTIVITIES AT THE OKLAHOMA MEDICAL RESEARCH FOUNDATION

EDWARD C. REIFENSTEIN, JR., M.D.
DIRECTOR

In this article, the sixteenth in the series, the current progress in the clinical cancer research section will be discussed. The program is now in full swing and it is still gathering momentum as additional equipment and facilities are becoming available. The section consists, at the present time, of several beds in the Research Hospital and the facilities of two laboratories. One of these, the central research laboratory under the direction of Dr. Charles D. Kochakian, consists of 15 units of laboratory space and, when fully manned, of over 20 technicians; this laboratory analyzes dietary, urinary, fecal and blood constituents. The second laboratory, under the direction of Dr. Leonard P. Eliel, head of the clinical cancer section, is devoted to an analysis of the constituents of cancer tissue. Both laboratories have been in operation for 10 months.

The first patient with cancer was admitted to the Research Hospital September 8, 1952, and long-term studies have been made on three patients with neoplastic disease since then. In addition, studies of short duration have been undertaken on four other patients.

The cancer research program is almost entirely supported by grants from various agencies. The largest comes from the National Cancer Institute, while substantial aid has been obtained also from the American Cancer Society and the Damon Runyon Memorial Fund, Inc. These grants provide not only for the operation of the laboratories and the salaries of the laboratory personnel, but also for the care of patients in the Research Hospital (that is, nursing care, diet and dietitians, medications, routine laboratory work, x-rays, etc.).

The chief need of the clinical cancer section at the present time is for research fellows, in order that the program can be further developed and accelerated. The American Cancer Society has recognized this need by awarding, through the University of Oklahoma School of Medicine, a clinical fellowship with an annual stipend of $3,600.00 for training and research. This fellowship will be under the supervision of Doctor Eliel. Furthermore, there is promise of additional assistance for other qualified fellows.

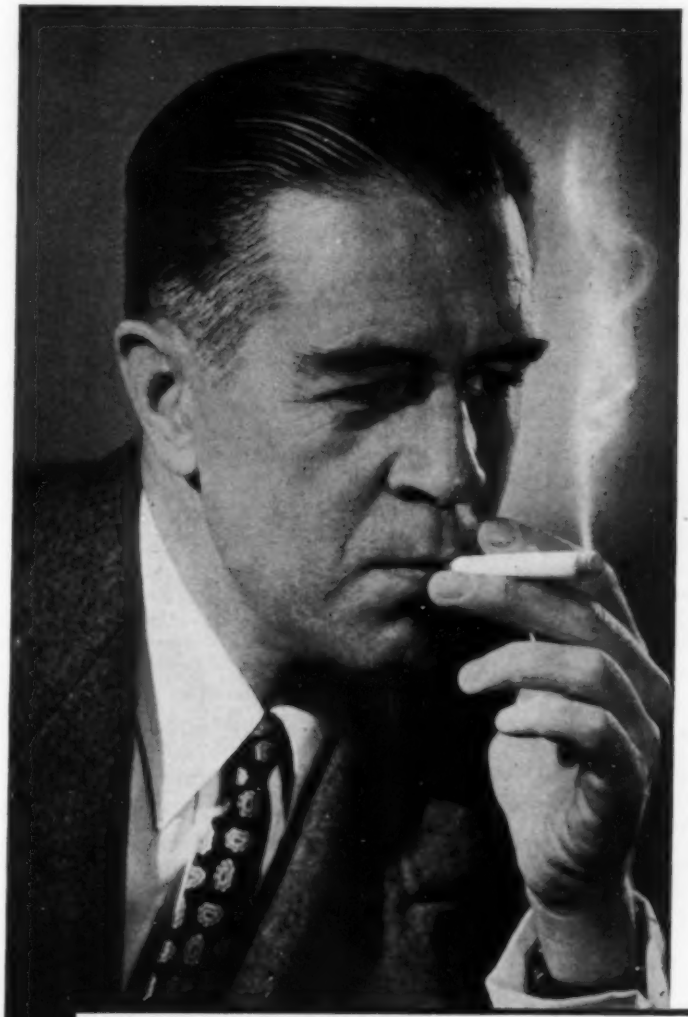
The research program at the present stage is divided into three phases of activity. The first concerns itself with the study of the mechanism of action of various agents which control the rate of growth of tissues in man. Thus, there is being investigated on the body economy of nitrogen and various electrolytes the effects of agents such as adrenal and sex hormones, nitrogen mustard-like compounds, anti-folic substanes, and ionizing radiation. Alterations in the composition of normal and neoplastic tissue are being determined. Changes are being induced in the protein and electrolyte environment of the cancer cell in order to observe the effect of such changes on the growth of the cell. Patients in this phase of the program are studied by means of the metabolic balance technique, which involves the determination of the total intake and output of nitrogen and electrolytes. The urinary excretion of creatine, creatinine and 17-ketosteroids also is determined.

One study in this first phase has been completed. The metabolic effects of triethylene melamine (TEM) have been studied in a patient with giant follicular type of lymphosarcoma. The amount of tumor mass in this patient apparently was relatively small, since shrinkage of the tumor was not reflected by any marked increase in excretory products. There was, however, a striking shift in the nitrogen balance; the patient consistently lost nitrogen from her body prior to the administration of TEM, whereas afterwards she exhibited definite retention of nitrogen, indicating anabolism of normal tissue. This anabolism was associated with marked symptomatic improvement. Tissue analyses of this study are still in progress.

The second phase of the cancer program involves an investigation of the effect of various blood protein fractions on the course of leukemia. This study was stimulated by the observation that in leukemia exchange transfusions (in which the entire blood volume is replaced by transfused blood) are sometimes followed by temporary hematologic and clinical remissions. This suggests that there may be a factor in normal blood which is missing from leukemic blood, and which can be administered in sufficient amount to induce a temporary remission of the disease. To test this, several plasma and red-cell proteins are being given to patients with various types of leukemia. At this writing, each of two boys with acute leukemia have been given approximately 125 gm. of human serum albumen, and one adult with a monocytoid type of leukemia has received approximately 80 gm. of modified human globin (the protein fraction of the hemaglobin molecule). Thus far, there has been no objective evidence of improvement with these proteins. However, further investigation is required in other types of leukemia, and with other kinds of plasma-protein fractions.

The third phase of the program involves an investigation of the effects of enzyme inhibitors on the growth of cancer tissue. One patient with adrenal cortical carcinoma was studied for 75 days in the Research Hospital. Her urinary output of 17-ketosteroids was approximately 20 times normal, and she also excreted in the urine very large quantities of a substance with chorionic gonadotropin-like properties. These excreted substances are presumed to have been produced by the extensive tumor. Since male hormones have been shown to cause atrophy of the adrenal cortex in animals, large doses of an androgenic hormone were administered to the patient in the hope it would cause tumor regression, but no change was observed. Subsequently, she was given isonicotinic acid hydrazide in the hope that this substance might compete with nicotinic acid in one of evidence that this substance retarded the growth of the enzymes which is required for the metabolism of

(Continued on Page 80)



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OBITUARIES

D. W. GRIFFIN, M.D.
1873-1953

D. W. Griffin, M.D., Norman, pioneer in the state's mental health program during his 50 years' service at the Central State Hospital, died January 1. He had been in ill health since he retired at Central State Hospital superintendent in 1949.

Doctor Griffin was born near Lenoir, North Carolina, October 28, 1873, and received his medical degree from Richmond, Virginia. He came to Indian Territory in 1899. He became superintendent of Central State Hospital in 1910.

F. R. FIRST, SR., M.D.
1888-1953

Francis Ray First, M.D., well known Oklahoma physician from Checotah, died in a Tulsa hospital January 31 following a short illness.

Doctor First, a graduate of Kansas University Medical School, practiced in Tulsa, Crescent and Barnsdall before going to Checotah. He began practicing in 1915.

Survivors include the widow of the home and two sons, Francis R. First, Jr., M.D., Checotah; and Safety First, M.D., Tulsa; and one daughter, Mrs. N. L. Garton, Joliet, Ill.

I. V. HARDY, M.D.
1870-1953

I. V. Hardy, M.D., Medford, Grant county physician for more than 50 years, died January 12 at an Enid hospital. His activities had been limited since suffering an injury in a fall eight years ago and he had been confined to his home for the past three years.

Doctor Hardy was born at St. Joseph, Mo., October 28, 1870. He studied medicine in Kansas City. Dr. and Mrs. Hardy were honored in November, 1951, with a party complimenting their "50 years of community service." At that time he received an O.S.M.A. 50 Year Pin.

WILLIAM A. TOLLESON, M.D.
1869-1953

William A. Tolleson, M.D., pioneer Eufaula physician, died January 24 in a Muskogee hospital.

Doctor Tolleson was born near Charleston, Arkansas, December 31, 1869. He studied in Arkansas under preceptors and also attended Barnes and Missouri Medical College. He began practice at Keokuk Falls, near Shawnee, and practiced in several other towns in Oklahoma before moving to Eufaula. He qualified with the Creek Board on Credentials in 1900. He joined the Indian Territory Medical Association in 1897 and was president in 1904. Doctor Tolleson was presented an O.S.M.A. 50 Year Pin several years ago.

He was a member of the Baptist church, a Master Mason and had served many terms on the City Council at Eufaula. He was a charter member of the Lions Club of Eufaula and had been president on three occasions.

RESOLUTION

WHEREAS, David Wilson Griffin, M.D., Professor Emeritus of Psychiatry and Neurology, having served on the faculty since September 1, 1916; beginning as Associate Professor of Psychiatry and Neurology and Medical Jurisprudence; gave of his best for the relief of suffering of others, and set an example which will long continue to influence and inspire us, died on January 1, 1953, and

WHEREAS, by the death of Doctor Griffin, the Medical Profession, the State, the Faculty of the Oklahoma University School of Medicine, and those who have depended upon him for help and counsel have a great loss, and

WHEREAS, we, the members of the Faculty of the Oklahoma School of Medicine, feel a keen sense of loss, both personal and professional, in the passing of our fellow member and desire to convey to the world our appreciation of his devoted service.

THEREFORE, BE IT RESOLVED, that we express to his relatives our sincere sympathy and our desire to share their great loss, and

BE IT FURTHER RESOLVED, that a copy of these resolutions be sent to the relatives of Doctor Griffin, a copy spread on the records of the faculty, and a copy sent to the *Journal* of the Oklahoma State Medical Association.

—Committee on Resolutions.

January 8, 1953

RESOLUTION

The Garvin County Medical Society feels a deep loss in the death of Dr. John R. Callaway. He long served this society in every office—for many years as secretary, and his records in that office are an accurate chronical of the actions and deliberations of this group—a record not surpassed in fullness and detail.

We, his colleagues, have lost a friend; Oklahoma has lost a pioneer of medicine and to many people of Garvin County the best and most compassionate of doctors, a grand and wonderful friend can never be replaced.

The history of pioneer medicine in Oklahoma has been written and Dr. John Callaway furnished material for a large chapter in that book. His greatness will be measured in time in the minds, the hearts and the lives of his many friends.

s/ J. A. Graham, M.D.
President

Hugh Monroe, M.D.
Secretary

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ANNOUNCEMENTS

AMERICAN ACADEMY OF GENERAL PRACTICE. St. Louis, March 23-26.

OKLAHOMA STATE MEDICAL ASSOCIATION. Tulsa, April 13-14-15. House of Delegates April 12.

AMERICAN COLLEGE OF PHYSICIANS. Atlantic City, April 13-17.

AMERICAN MEDICAL ASSOCIATION. June 1-5, New York City.

NATIONAL TUBERCULOSIS ASSOCIATION. May 18-22. Los Angeles.

AMERICAN ASSOCIATION OF THE HISTORY OF MEDICINE. Annual Meeting to be held with the sesqui-centennial celebration of Ohio at Columbus, Ohio April 10, 11, and 12. Dr. Linden F. Edwards, Department of Anatomy, Hamilton Hall, Ohio State University, Columbus 10, Ohio, is chairman of the program and arrangements committee. All interested persons are invited to attend.

SOUTHWEST ALLERGY FORUM. Kansas City, Missouri, Hotel Muehlebach, June 14-15-16. Those interested in participating in the program are invited to write the president, Orval Withers, M.D., Bryant Building, Kansas City 6, Mo. For information write Frederic Speer, M.D., Secretary-Treasurer, 2601 Parallel Ave., Kansas City 4, Kans.

AMERICAN CONGRESS OF PHYSICAL MEDICINE AND REHABILITATION. Palmer House, Chicago, August 31, September 1-4. Full information may be obtained by writing to the executive offices, American Congress of Physical Medicine and Rehabilitation, 30 North Michigan Ave., Chicago 2, Ill.

TUBERCULOSIS SYMPOSIUM FOR GENERAL PRACTITIONERS. Saranac Lake, New York, July 13-17.

COLLEGE OF MEDICAL EVANGELISTS ANNUAL POSTGRADUATE CONVENTION. Ambassador Hotel, Los Angeles, March 8-10.

BOOK REVIEW

TUBERCULOSIS. Saul Solomon, M.D. Coward-McCann, Inc. New York. 1952. Price $3.50.

In the Coward-McCann Health Series, this book by Saul Solomon, M.D. will answer many questions constantly arising in the minds of physicians, patients, nurses, public health workers and a curious public recently rendered more curious by unwarranted publicity about so-called miracle drugs in the treatment of tuberculosis. The book, designed for the non-medical reader, is well written and easily understood. A glossary explains medical and technical words and terms and there is an index for the convenience of the reader. The book might well be in every physician's reception room and in the libraries of every tuberculosis society and public health agency.

It is readable, thought provoking, educational and timely.—Lewis J. Moorman, M.D.

MEET OUR CONTRIBUTORS

Martin Leibovitz, M.D., Tulsa, is the author "Surgical Lesions of the Chest in Children." He was graduated from the University of Illinois School of Medicine and practiced in Iowa City and Des Moines, Iowa, and Chicago, before coming to Oklahoma. His specialty is thoracic and cardio-vascular surgery and he is a Fellow of the American College of Surgeons, has been certified by the American Board of Surgery, and is a member of the American Trudeau Society.

E. N. Lubin, M.D., Tulsa, wrote "The Management of Ureteral Calculi: An Analysis of 285 Consecutive Cases" in this issue. Doctor Lubin, whose specialty is urology, had been certified by the American Board of Urology. He was graduated from the State University of Iowa and interned at Iowa Methodist Hospital, Des Moines. He served his residency at Jefferson Medical College Hospital, Philadelphia.

Walker Morledge, M.D., Oklahoma City, has a paper on "Emphysema" in the March *Journal*. Doctor Morledge was graduated from Western Reserve University in 1919 and interned at Cleveland City Hospital. He served his residency at University of Oklahoma Hospitals and also did postgraduate work in South Africa and London. His specialty is internal medicine.

Brunel D. Faris, M.D., Oklahoma City, a graduate of the University of Oklahoma School of Medicine, wrote the paper on "Timing in Labor." Doctor Faris interned in Chicago and served his residency in obstetrics at Wesley Hospital, Oklahoma City. His specialty is obstetrics and gynecology.

CURRENT ACTIVITIES AT THE OKLAHOMA MEDICAL RESEARCH FOUNDATION

(Continued from Page 76)

steroid hormones in the tissues. Again, there was no the tumor, although there was a suggestion that the excretion of steroids and gonadotropins may have been reduced. The patient died recently, and two and one-half kilograms of tumor were removed from the liver at autopsy. The tumor mass now is being analyzed for the hormone substances that were found in the urine.

Work with radioactive isotopes was begun in February, 1953. The isotopes are being used as tracer substances in the balance investigations. They will yield information concerning the distribution and the quantity of potassium sodium, chloride, and sulfur in the body. The facilities of the isotope laboratory in the Oklahoma Medical Research Institute are being utilized in these studies.

Investigations to be undertaken in the near future will involve the effects of varying the protein and electrolyte environment of the body on the growth of tumors. Some studies will be made also on the physiology of the adrenalectomized human, since adrenalectomy has been used extensively as an experimental approach in the control and palliation of cancer.

The Clinical Cancer Section is in need of suitable clinical material for its beds in the Research Hospital. Patients with advanced cancer not amenable to surgery or x-ray, who are still in relatively good condition, are desired. Physicians with such patients, who might be interested in the palliation of their disease by experimental methods, can assist the work of the Research Foundation by contacting Dr. Leonard P. Eliel, the Head of the Clinical Cancer Section.